

Analysing Risk and Return Using the CAPM Method for Investment Options in Sub Industry Specialty Chemicals (2023-2024)

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Abstract. This study aims to analyze stock returns and risks, as well as grouping efficient and inefficient stocks to make investment decisions using the Capital Asset Pricing Model (CAPM) model. This type of research is descriptive research with a quantitative approach. The sample used is a basic materials sector company sub-industry specialty chemicals during the period April 2023 – March 2024. The sample used was 7 shares of financial holdings industry companies determined by the researcher compare them with the actual rates of return in the corresponding periods to identify the valuation status of the stocks. Calculations using the CAPM model resulted in 4 efficient companies and 3 inefficient companies. Shares of OBM Drilchem Tbk (OBMD) are undervalued, because the value of individual returns (R_i) is higher at 0.65873 or 65.84%, with the resulting investment decision for efficient category stocks is to consider buying these shares at the lowest price at the current lowest price before increasing in the future. While the shares of Argha Karya Prima Industry Tbk (AKPI), are inefficient stocks, because the value of individual returns (R_i) is lower at -0.50650 or -50.65%, the resulting investment decision for stocks with inefficient categories is to sell the shares at the highest price now and before experiencing a price decline in the future.

Keywords: Return, Risk, Capital Asset Pricing Model (CAPM), Investment Decisions, IDX index

INTRODUCTION

Today's global economy is developing at a very fast pace. The development of the capital market in Indonesia shows that the capital market can be used as an alternative investment other than banking, and its growth also shows that investors are confident enough to invest in the capital market. This regrowth of capital markets can be used as a way for interested parties, such as investors and governments, to make optimal use of them for mutual benefit. Before investing in the stock exchange, especially on the Indonesia Stock Exchange (IDX), investors will gather as much information as possible that will help them make investment decisions. The information needed includes stock prices, company performance (in financial statements and other operational reports), and external factors. The information obtained by investors can be in the form of formal or informal information. However, because of the large amount of information and most of it, but because of the breadth and abundance of information and most of it has not been processed,

investors have difficulty in determining useful information. Investors who invest in shares will benefit from capital gains, which are positive differences between the purchase price and selling price of shares, as well as cash dividends provided by issuers (Suryani, 2019). Investors must also take certain risks to profit from a stock, or the greater the risk an investor dares to take the greater the expected profit. Every investment has risks and uncertainties. There are two types of investment risk: systematic risk and unsystematic risk. The risk that investors need to be aware of is systematic risk that is influenced by general market conditions or called beta equity (Lumbantoruan & Suaryana, 2018).

Estimating the return on a particular security is a necessary skill for investors. Untuk menganalisis saham dapat menggunakan pendekatan model CAPM (Capital Asset Pricing Model). CAPM merupakan model yang menjelaskan hubungan antara risiko dan ekspektasi return (Ikhsanto, 2020). We require a model of balance in order to calculate the return on security accurately. If there is a condition of equilibrium in the capital market, we may ascertain the pertinent risk measurements and the way in which the risks associated with each asset are related by establishing general balance models. The Capital Asset Pricing Model (CAPM) method is one of the approaches that are used. When it comes to investing, the biggest challenge for investors is figuring out which riskier securities to purchase. The adage "high risk, high return" applies here, and investors can use it as a guide when making investments.

The measure of risk which is an indicator of equity sensitivity in CAPM is represented by the β (beta) variable. The greater the β of a stock, the greater the risk that exists in the stock. The average interest rate used as market return is the return of investment opportunities in the capital market (market index). In this case, the Integrated Stock Price Index (JCI) is used.

RESEARCH OBJECTIVE

This research is classified as quantitative descriptive research. Descriptive research is making systematic, factual, and accurate descriptions of the facts and characteristics of a particular population or area. This study aims to analyze the calculation results and optimal investment choices in terms of risk and return on Indonesian telecommunications industry stocks listed on the Indonesia Stock Exchange (IDX) whether they are worth buying or selling according to the CAPM approach in terms of risk and return for the period April 2023 to March 2024.

LITERATUR REVIEW

Investment

Spending money or other resources with the hope of earning returns later on is called an investment. To raise the value or generate a return on the capital or assets invested is the primary goal of investing. Depending on the kind of investment selected, there are different risks connected with it. As compensation for their risk, investors often want to maximize their return on investment, which may take the form of income, capital gains, or both. Retirement planning, asset building, generating passive income, and other long-term financial goals are just a few of the many goals that can be covered by these returns.

Before making an investment, it is crucial to plan and carry out a thorough study in order to lower risk and raise the likelihood of success. Financial objectives, risk tolerance, investment time horizon, and diversification should all be taken into account in this study.

Stocks Investment

Investing in stocks involves owning or buying company shares with the intention of profiting from the company's future success through capital growth (an increase in value of the stock) and dividend income (a percentage of the company's profits). Investing in stocks has many advantages over less liquid assets like real estate and other immovable assets, including the exchange-provided liquidity that allows holders of securities to sell them quickly and easily. In the past, the dynamics of economic indicators have been significantly influenced by the price of stocks and other assets. An economy is deemed to be improving while the stock market is rising. As a result, the stock market is occasionally regarded as a key indicator of the health and direction of an economy.

Investment Risk

Investment risk refers to the chance of suffering a financial loss or having your investment's value altered. Investment risk must be understood when making decisions about your money because there are several risks associated with investing that can have an impact on your returns. Never forget that there is risk involved in any investment; none of them is risk-free. Spreading out your investments across a range of assets is a typical method to lower risk in your investment portfolio. Striking a balance between risk and return that fits your risk tolerance and financial objectives is the aim of investment management. You can identify and effectively manage financial risks by doing thorough preparation and research.

Investment Return

The return on investment (ROI), sometimes referred to as the rate of return on investment, is a metric used to assess how much income or profit an investment produces in relation to its costs. The return on

investment (ROI) is a percentage that shows how productive and efficient the investment was. This is a crucial financial analysis indicator that people, businesses, and organizations use to evaluate the performance of their investments.

Beta

Beta is a security return kovarians with a market return that is standardized with a stock return variance. The CAPM also stated that the larger the beta coefficient, the greater the return of a stock and also the more risky ($\beta_i > 1$), and when ($\beta_i < 1$), then the stock has a low risk. If a security has the same beta as the beta of the market portfolio ($\beta_i = 1$), then it is expected that the investor will get a greater expected return compared to the expected return of the portfolio market.

Capital Asset Pricing Model (CAPM)

The expected rate of return on an investment is determined by the amount of systematic risk or market risk using the Capital Asset Pricing Model (CAPM), a financial model. When evaluating whether an investment is profitable enough given the risks involved, investors and financial analysts can use the model to help. The anticipated rate of return (sometimes called the needed rate of return or the expected rate of return) on an investment can be computed in the CAPM using the following formula:

$$R_i = R_f + \beta_i(R_m - R_f)$$

Where:

R_i : expected rate of return on a particular investment

R_f : risk-free rate of return, such as the interest rate on government bonds

β_i : beta coefficient, which measures the sensitivity of an investment to changes in the overall market

R_m : overall market rate of return

The Capital Asset Pricing Model (CAPM) is a valuable tool for evaluating investment returns and risk, and it is widely utilized in portfolio analysis and investment decision-making. Particularly in the areas of investment research and portfolio management, a few of the key features of the Capital Asset Pricing Model (CAPM) are important in the financial industry. Financial research and investment decision-making still heavily rely on the CAPM, despite certain practical shortcomings such its oversimplified assumptions and lack of transaction costs.

METHODS

The type of research that this is is quantitative descriptive research. The goal of descriptive research is to provide a methodical, truthful, and precise account of the characteristics and circumstances of a certain population or region (Suryabrata, 1983). The shares of road transportation companies listed on the Indonesia Stock Exchange between April 2023 and March 2024 are the research object for this study. Secondary data in the form of monthly time series data from stock prices and the Composite Stock Price Index (CSPI) were acquired from the Indonesia Stock Exchange, Bank Indonesia, and Yahoo Finance. The following people analyze how the CAPM method is used to determine investment:

- Collecting stock information for the basic materials subindustry specialty chemicals for the months of April 2023 through March 2024, specifically the month-end closing price information.

- Calculating the profit level of each stock (R_i)

$$R_i = P_t - P_{t-1} / P_{t-1}$$

Where:

P_{t-1} : Stock price in the previous period

P_t : Stock price in the current period

- Calculating the market rate of return (R_m)

$$R_m = IHS_{Gt} - IHS_{Gt-1} / IHS_{Gt-1}$$

Where:

IHS_{G1} : Composite Stock Price Index at the end of period t

IHS_{Gt-1} : Composite Stock Price Index in the previous t period

- Calculating Beta (β) of the stock

$$\sum_{t=1}^N (R_i - \bar{R}_i)(R_m - \bar{R}_m) / (R_m - \bar{R}_m)$$

Where:

R_i : Return on Securities

$\bar{R}_i$: Return on previous securities

R_M : Return spread

$\bar{R}_m$: Previous month's Market Return

- Calculating the risk-free rate of return (R_f) through the monthly BI rate, 4,15%

- Calculating the expected rate of return according to CAPM

$$E(R_i) = R_f + \beta_i [E(R_m) - R_f]$$

Where:

R_i : expected rate of return on a particular investment

R_f : risk-free rate of return, such as the interest rate on government bonds

β_i : beta coefficient, which measures the sensitivity of an investment to changes in the overall market
 R_m : overall market rate of return

Efficient stocks and inefficient stocks are the results of stock valuations based on individual performances and predicted returns.

VARIABLE

Specific attributes or qualities that are present in the subject of the study are known as research variables. For the months of April 2023 through March 2024, this study examines investment decisions made on the Indonesia Stock Exchange's BEI Index using the Capital Assets Pricing Model (CAPM) technique.

In order to facilitate research, design studies that are helpful in creating research suites, descriptions, and explanations are necessary. A quantitative descriptive research design applies to this study. In this study, the Capital Asset Pricing Model (CAPM) method was applied to the IDX Index on the Indonesian Stock Exchange in order to describe investment decision making. As a result, a descriptive research methodology was adopted.

POPULATION AND SAMPLE

Indeks Sub Industry Specialty Chemicals terdiri dari 7 saham yang dipilih berdasarkan kriteria yang sudah ditentukan. *Berikut adalah tabel Sub Industry Specialty Chemicals:*

Table 1 List Sub Industry Specialty Chemicals

Specialty Chemicals		
No	Code	Stock Name
1	AKPI	Argha Karya Prima Industry Tbk
2	APLI	Asiaplast Industries Tbk
3	AVIA	Avia Avian Tbk
4	CLPI	Colorpak Indonesia Tbk
5	DPNS	Duta Pertiwi Nusantara Tbk
6	EKAD	Ekadharma International Tbk
7	OBMD	OBM Drillchem Tbk

Source: Data processed by Microsoft Excel

Results of Analysis of Individual Stock Returns (R_i)

Investment indicators include things like the rate of return on specific stocks. The amount that investors really make when they invest is known as the rate of return on specific equities. The difference between the closing share prices of the current and previous periods is subtracted,

and the result is divided by the share price of the prior period to determine the rate of return for individual shares (Ri). The results are displayed in the following table:

Table 2 Calculation Results of Average Individual Return for Each Company (Ri)
for the April 2023 – March 2024 period

Close Data Collection								Return						
DATE	AKPI	APU	AMA	CLPI	DPNS	EKAD	OBMD	AKPI	APU	AMA	CLPI	DPNS	EKAD	OBMD
01/04/2023	1.195.000.000	322.000.000	600.000.000	930.000.000	396.000.000	272.000.000	159.000.000	-0.13808	0.05590	0.14167	0.05914	0.01010	-0.02941	0.05031
01/05/2023	1.030.000.000	340.000.000	685.000.000	985.000.000	400.000.000	264.000.000	167.000.000	-0.05340	0.18235	-0.02920	0.04061	0.02500	0.00000	0.07784
01/06/2023	975.000.000	402.000.000	665.000.000	1.025.000.000	410.000.000	264.000.000	180.000.000	0.01026	0.29353	-0.06767	-0.03902	-0.00976	-0.02273	0.33333
01/07/2023	985.000.000	520.000.000	620.000.000	985.000.000	406.000.000	258.000.000	240.000.000	-0.04061	0.00962	-0.03226	-0.00508	0.04926	0.00000	0.25833
01/08/2023	945.000.000	525.000.000	600.000.000	980.000.000	426.000.000	258.000.000	302.000.000	-0.15873	0.02857	-0.06667	-0.02041	0.07042	-0.01550	-0.10596
01/09/2023	795.000.000	540.000.000	560.000.000	960.000.000	456.000.000	254.000.000	270.000.000	-0.09434	0.04630	-0.10714	0.02604	0.09649	-0.02362	0.00000
01/10/2023	720.000.000	565.000.000	500.000.000	985.000.000	500.000.000	248.000.000	270.000.000	-0.00694	-0.00885	-0.02800	0.00000	-0.05200	-0.00806	0.00000
01/11/2023	715.000.000	560.000.000	486.000.000	985.000.000	474.000.000	246.000.000	270.000.000	0.03497	0.07143	0.02881	0.00000	-0.11392	0.00813	0.00000
01/12/2023	740.000.000	600.000.000	500.000.000	985.000.000	420.000.000	248.000.000	270.000.000	-0.03378	-0.06667	0.16000	0.00000	-0.04762	0.00806	-0.01481
01/01/2024	715.000.000	560.000.000	580.000.000	985.000.000	400.000.000	250.000.000	266.000.000	0.03497	0.05357	0.01724	0.00000	0.03500	0.01600	0.02256
01/02/2024	740.000.000	590.000.000	590.000.000	985.000.000	414.000.000	254.000.000	272.000.000	-0.06081	-0.06780	-0.06780	0.00000	0.00966	-0.02362	0.03676
01/03/2024	695.000.000	550.000.000	550.000.000	985.000.000	418.000.000	248.000.000	282.000.000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
22/03/2024	695.000.000	550.000.000	550.000.000	985.000.000	418.000.000	248.000.000	282.000.000							

Source: www.yahoo.finance.com

The rate of return on individual shares (Ri) can be calculated by comparing the closing price of shares (closing price) this month which is denoted by the (t) month minus the closing price of shares last month which is denoted by the t-1 month and then divided by the closing share price of the month to t-1.

Table 3 Result Return of Individual Stocks 7 Companies in the Sub Industry
Specialty Chemical

No.	Code	Ri
1	AKPI	-0,50650
2	APU	0,59796
3	AMA	-0,05102
4	CLPI	0,06128
5	DPNS	0,07264
6	EKAD	-0,09076
7	OBMD	0,65837

Source: Data processed by Microsoft Excel

Based on table 3, it can be seen that OBM Drilchem Tbk (OBMD), received the highest individual stock return (Ri) of 0.65873. Meanwhile, Argha Karya Prima Industry Tbk (AKPI), received the lowest individual share rate of return (Ri) of -0.50650.

Results of Analysis of Market Returns (Rm)

The market rate of return is the rate of return that is based on the development of the stock index. The whole transaction history of shares that are currently listed on the stock exchange is thought to be represented by the use of IHSE. The rate of return determined by how the stock index has developed is known as the market rate of return. The market return is computed by dividing the IHSG in the preceding month

(t-1) by the difference between the market index in the current month (t) and the previous month (t-1). The market rate of return (R_m) total is displayed in the table as 0,0625998.

Table 4 Market Rate of Return for the Period April 2023 – March 2024

Date	Close	IHSG
01/04/2023	6.915.715.820,00	
01/05/2023	6.633.261.230,00	-0,0408424
01/06/2023	6.661.878.906,00	0,0043143
01/07/2023	6.931.358.887,00	0,0404510
01/08/2023	6.953.259.766,00	0,0031597
01/09/2023	6.939.892.090,00	-0,0019225
01/10/2023	6.752.210.938,00	-0,0270438
01/11/2023	7.080.741.211,00	0,0486552
01/12/2023	7.272.796.875,00	0,0271237
01/01/2024	7.207.940.918,00	-0,0089176
01/02/2024	7.316.110.840,00	0,0150070
01/03/2024	7.338.353.027,00	0,0030402
22/03/2024	7.335.234.863,00	-0,0004249
	Realized market	0,0625998

Source: www.yahoo.finance.com, Data processed by Microsoft Excel

Result of Analysis of Risk Free

The risk-free rate of return or Risk-free is the rate of return on a risk-free investment using Bank Indonesia Interest Rate (BI) data with an average risk-free value of 4,15% in one year.

Results of Systematic Risk Analysis of Each Individual Stock (β_i)

One indicator of market risk that influences a stock's price is systematic risk, often known as beta (β_i). A stock's beta value is derived from the correlation between its rate of return and the market rate of return (Hartono, 2012). The beta of a stock influences a stock's price swings and the amount of the projected rate of return, which is why investors need to take this into account, according to the CAPM technique. When a security's beta ($\beta_i < 1$) is lower than the market portfolio risk, it is considered less hazardous. In contrast, it is considered to have a systemic risk bigger than the market risk if its value ($\beta_i > 1$). The beta calculation of Specialty Chemicals companies which are used as samples can be processed using SPSS as follows:

Table 5 Systematic Risk Calculation Result for Each Company (β_i)

No.	Code	R_i	R_m	β_i
1	AKPI	-0,50650	0,0625998	1,73249241
2	APLI	0,59796	0,0625998	1,208353494
3	AVA	-0,05102	0,0625998	-1,032119572
4	CLPI	0,06128	0,0625998	-0,670891886
5	DPNS	0,07264	0,0625998	-1,15653932
6	EKAD	-0,09076	0,0625998	0,187715379
7	OBMD	0,65837	0,0625998	1,382614262
Maximum (AKPI)				1,73249241
Minimum (DPNS)				-1,15653932

Source: Data processed by Microsoft Excel

Table 5, illustrates that, of the 7 sample firms under investigation, 4 have positive beta and 3 have negative beta, according to the computation of systematic risk (beta). Argha Karya Prima Industry Tbk (AKPI) has the highest systematic risk (beta) is 1,732. Meanwhile, Duta Pertiwi Nusantara Tbk (DPNS), with a beta of -1,156, is the corporate stock with the lowest beta. When beta is negative, it indicates that the direction of price movement differs from the market's (if the market return increases, the security's return decreases, and vice versa).

Results Analysis Level Return Which Expected [$E(R_i)$]

Expected Rate of Return for Each Company $E(R_i)$ is the anticipated profit that investors hope to make on their stock investments. The variables risk-free rate of return (R_f), market rate of return (R_m), and systematic risk (β_i) are utilized in the CAPM technique to get the expected rate of return. Table 6 below displays the findings of the computation of the expected rate of return from the 7 firm shares.

Table 6 Calculation Results of the Expected Rate of Return for Each Company [$E(R_i)$]

No	Code	R_f	R_i	R_m	β_i	$E(R_i)$
						$R_f + \beta_i(R_m - R_f)$
1	AKPI	4,15%	-0,5065	0,0626	1,732492	0,078055294
2	APLI	4,15%	0,597956	0,0626	1,208353	0,066996052
3	AVA	4,15%	-0,05102	0,0626	-1,03212	0,019722453
4	CLPI	4,15%	0,061282	0,0626	-0,67089	0,027344296
5	DPNS	4,15%	0,072638	0,0626	-1,15654	0,017097218
6	EKAD	4,15%	-0,09076	0,0626	0,187715	0,045460762
7	OBMD	4,15%	0,658371	0,0626	1,382614	0,070672925
Average						0,046478429
Minimum						0,017097218
Maximum						0,078055294

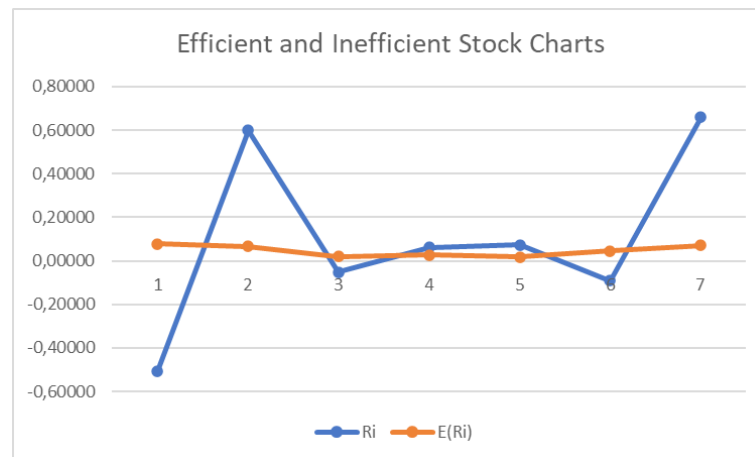
Source: Data processed by Microsoft Excel

Table 6 shows that the average predicted rate of return for the seven firm shares under study is 4,64%, or 0,0464. With an expected rate of return of 0,078 percent, or 7,81%, Argha Karya Prima Industry Tbk (AKPI) has the greatest projected rate of return. However, Duta Pertiwi Nusantara Tbk (DPNS), with an expected rate of return of 0,01709, or 1,71%, has the lowest rate of return. This illustrates how the size of the predicted return is influenced by the stock's level of risk, as shown by the beta value.

Classification of Efficient Stocks and Investment Decision

Stocks that have individual returns higher than the expected rate of return, or $[(R_i) > E(R_i)]$, are considered efficient. Conversely, stocks that have individual returns less than the expected rate of return $[(R_i) < E(R_i)]$ are considered inefficient stocks. The SML chart below shows stocks that are both efficient and inefficient.

Figure 1 processing of the data



Source: Data processed by Microsoft Excel

Position average level return individual (R_i) efficient stocks on the chart are above the expected return point, or $E(R_i)$, according to the graph.

Conversely, when it comes to shares that lack efficiency, the position average level return individual (R_i) is below the expected return point, or $E(R_i)$.

Table 7 Grouping of Shares

No	Code	Stock Name	R_i	$E(R_i)$	Result	Share Grouping	Decision
				$R_f + \beta_i(R_m - R_f)$			
1	AKPI	Argha Karya Prima Industry Tbk	-0,5065	0,078055294	$R_i < E(R_i)$	Inefficient	SELL
2	APLI	Asioplast Industries Tbk	0,597956	0,066996052	$R_i > E(R_i)$	Efficient	BUY
3	AVIA	Avia Avian Tbk	-0,05102	0,019722453	$R_i < E(R_i)$	Inefficient	SELL
4	CLPI	Colopak Indonesia Tbk	0,061282	0,027344296	$R_i > E(R_i)$	Efficient	BUY
5	DPNS	Duta Pertiwi Nusantara Tbk	0,072638	0,017097218	$R_i > E(R_i)$	Efficient	BUY
6	EKAD	Ekadharma International Tbk	-0,09076	0,045460762	$R_i < E(R_i)$	Inefficient	SELL
7	OBMD	OBM Drilchem Tbk	0,658371	0,070672925	$R_i > E(R_i)$	Efficient	BUY

Source: Data processed by Microsoft Excel

Table 7 shows that, It can be seen that of the 7 shares of companies that became the research sample, there were 4 shares included in the efficient group and 3 shares in the company included in inefficient group.

- a. The companies included in the efficient category are Asiaplast Industries Tbk, Colorpak Indonesia Tbk, Duta Pertiwi Nusantara Tbk, OBM Drilchem Tbk. Efficient stocks are those that have an individual return rate higher than the expected return rate or $[R_i > E(R_i)]$. An effective equity investment decision is to consider buying the stock.
- b. Meanwhile, 3 shares of companies are included in the inefficient stock group, namely Argha Karya Prima Industry Tbk, Avia Avian Tbk, Ekadharma International Tbk. Inefficient stocks are those that have an individual yield lower than the expected yield rate or $[R_i < E(R_i)]$. The decision taken on inefficient shares is to consider selling these shares.

CONCLUTION

This study concludes that there is a nonlinear relationship between systematic risk and predicted stock returns based on the findings of the data analysis that was done. The Basic Materials sector's secondary data for the months of April 2023 through March 2024 was used in the analysis. According to the analysis, OBM Drilchem Tbk (OBMD), with a return on investment of 0.65873, has the greatest individual stock return (R_i). With a rate of return (R_i) of -0.50650, Argha Karya Prima Industry Tbk (AKPI) was given the lowest individual share. The market rate of return (IHSG) yielded a resultant value of 0,0625998. Argha Karya Prima Industry Tbk (AKPI) has the greatest systematic risk (beta) of 1,732 and the highest individual stock systematic risk (β). In the interim, Duta Pertiwi Nusantara Tbk (DPNS), with a beta of -1,156. The riskfree result through the monthly BI rate, 4,15%.

There are 4 company stocks that are included in the category of efficient stocks to buy. The company's stocks included in the efficient stock category include: APLI, CLPI, DPNS, and OBM stocks. These stocks have a value of R_i greater than $E(R_i)$ or $[R_i > E(R_i)]$. The investment decision that investors should make is to buy these stocks.

Meanwhile, 3 shares of companies are included in the inefficient stock group, namely AKPI, AVIA, and EKAD. Inefficient stocks are those that have an individual yield lower than the expected yield rate or $[R_i < E(R_i)]$. The decision taken on inefficient shares is to consider selling these shares.

The rate of return from capital gains alone was used to compute the research's rate of return; dividends received throughout the study period were not taken into consideration. A return that is more akin to the return on short-term investments is also produced by the price reference calculation's use of monthly pricing data, as opposed to daily or annual price data.

SUGGESTION

Based on the results of the research that has been carried out, the suggestions that researchers can give are as follows: For Investors and Prospective Investors Before making an investment decision, investors and potential investors should first choose which shares are capable of providing profits or rates of return. which was greater than investors expected. The CAPM method can be used as a basis for investment considerations for investors and potential investors who will invest in shares. However, to get an accurate estimate, you should use a long period of time with the latest data, don't just look for sources of information based on the CAPM method which describes the risk and return relationship more simply because it only uses one variable (beta). The CAPM method also uses technical analysis, so if you are in doubt about the results of this analysis, you can use another analysis that uses fundamental techniques. After conducting an analysis and discussion of the analysis of optimal portfolio formation on stocks listed on the Indonesia Stock Exchange for the period April 2023 - March 2024, the suggestion from this study is that investors can invest their funds in these 4 stocks as an alternative choice.

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